TOP SECRET

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17 FEB 1967

MEMORANDUM FOR: Comptroller, Office of Special Activities

SUBJECT: Operational Concepts for IDEALIST (FY 1968-73) and OXCART (FY 68-First Six Months)

1. Forwarded for your information and guidance are the Operational Concepts for the OXCART and IDEALIST programs.

SIGNED

[redacted] 25X1A9A

Colonel, USAF
Deputy for Operations, OSA

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SAS/O/OSA/[redacted]js (17 Feb 67)

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25X1 [redacted] [redacted] 25X1

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TOP SECRET

IDEALIST OPERATIONAL CONCEPT

FY-1968, 1969 AND

CONSOLIDATED CONCEPT FOR FY-1970 THRU 1973

1. MISSION AND MISSION PLANNING

a. Mission: To conduct covert reconnaissance (photographic and electronic) over denied and hostile territory, or peripheral reconnaissance, on a world-wide basis in support of the national intelligence objectives of the United States.

b. Areas over which aerial reconnaissance is to be conducted are determined by the National Intelligence Community as expressed by the USIB and COMOR.

c. Mission planning and control of reconnaissance flights will be accomplished by Project Headquarters within the limits imposed by approval authorities.

2. REQUIREMENTS

a. It is assumed that the life expectancy of the U-2 will extend beyond FY-68, operating in the same general areas as at present--China, North Korea, Sino-Indian Border, Southeast Asia, and wherever else a requirement may be generated.

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[redacted]

b. Beyond 1968, the requirement for the U-2 becomes less clear as to identification of specific target areas. It can be assumed, however, that the international scene will be no less parlous than it is now, and that crises will continue to arise which will generate requirements for covert reconnaissance. They could occur in South America, Africa, the Middle East and Indonesia. Therefore, for reasons of mobility, economy, reliability and quick response, there will exist a requirement for U-2's for some years to come.

c. Although requirements for specific target coverage can change drastically from time to time, experience indicates that the total number of operational missions required for any given year remains fairly constant. Presently identified target areas and specific targets in the Far East will require 70 operational missions per year to obtain the desired coverage. In addition to the missions required for these targets, it is assumed that at least fifteen additional missions will be generated each year to obtain coverage of targets in other areas of the world which, as yet, have not been identified for U-2 reconnaissance.

d. This requirement (eighty-five (85) operational

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missions per year) is not expected to diminish through FY-68.

e. Experience gained from the first ten years of the IDEALIST program indicates that requirements are seldom satisfied. Unfavorable weather, political considerations and other factors combine to preclude a "caught-up" position in covert reconnaissance. The annual average number of operational reconnaissance missions during this ten-year period is forty-eight (48), and it is reasonable to assume that approximately this number of missions will be accomplished each year during the period covered by this paper. It should be pointed out, however, that should IDEALIST assets be employed in a tactical situation, this number of operational missions would increase considerably.

3. ASSETS

a. Detachment "G" is permanently located at Edwards Air Force Base, California, but is required to maintain a dual staging capability to conduct operational missions as may be required anywhere in the world. Additionally, this detachment retains the responsibility for the conduct of continuing development programs for new equipment and

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tactics, and for the training of replacement personnel.

b. Detachment "H" is permanently located at 25X1A6A [redacted] 25X1A6A [redacted] This detachment is manned with U.S. supervisors, maintenance and special equipment technicians and 25X1 [redacted] [redacted] are 25X1X7 rotated from Detachment "G" to Detachment "H" on a temporary duty basis to function as instructor pilots and to conduct unilateral operational missions. A full time requirement will continue to exist at Detachment "H" for the use of one flight planner from Detachment "G" to augment that operations staff on deployments.

c. Project IDEALIST has semi-permanently located at 25X1A6A [redacted] various equipment and assets for the purpose of establishing a quick reaction U-2 mission launch and/or recovery capability.

d. Any Project IDEALIST deployments to [redacted] 25X1A6A 25X1A6A [redacted] in the future will entail quite a bit of airlift support as the useable equipment and materiel previously prepositioned there has been withdrawn and stored at 25X1A6A [redacted] Adequate safeguards and maintenance of equipment was not performed at 25X1A6A [redacted]

e. Project IDEALIST is actively considering pre-positioning various equipment fuel and other assets at 25X1 [redacted]

other possible bases throughout the world, primarily to reduce the reaction time now required to deploy a detachment for covert reconnaissance purposes.

(1) Project IDEALIST is pressing forward on

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mission should be in March 1967. Pilot training, as well as maintaining this program, will continue through FY-68.

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(2) Additional requirements for

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system can be expected. Storage, maintenance and manning of this equipment will be accomplished at Detachment "G". The capability to deploy this equipment to Detachment "H" or another staging base within thirty (30) days will be maintained.

f. To maintain mission capability due to improved air

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defense capabilities of the opposition, and also improve IDEALIST assets, a continuing requirement exists for improved detection systems, defense systems and collection systems. 25X1

(1) Development of an [redacted] (oblique) is necessary, with a range of greater than 25 nautical miles, [redacted] when the target is protected by SA-2 missile sites. 25X1

(2) The entire fleet of IDEALIST aircraft will be equipped with a doppler navigation system early in FY-68. A continuing requirement will then exist for factory qualified specialists to maintain this equipment at Detachment "G" and Detachment "H".

(3) Improved air defense capabilities over denied territory have made it mandatory that the performance characteristics of the U-2 be improved. An increase in aircraft range, coupled with a decrease in time required to climb to a safe penetration altitude must be achieved. The weight reduction program, the removing of equipment that does not contribute to the effectiveness of the mission and replacing present equipment, where possible, with

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[redacted]

smaller and lighter equipment that will perform the same function, has only partially accomplished the desired results. This program must be vigorously continued.

25X1D0C

[redacted]

(5) A U-2 Flight Simulator is required at each detachment location. This requirement is based upon

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[redacted]

25X1

the position that Project IDEALIST is now in, that of training new and inexperienced pilots for U-2 overflight missions in the shortest possible time. This is particularly appropriate in [redacted] 25X1X7 detachment where the pilots are rotated after they have flown ten overflight missions or are in the detachment for eighteen months. The use of a realistic simulator would not only shorten the flight training required of a pilot before he reaches an operational ready status, but would contribute considerably to maintaining the pilots at their peak performance level at all times. With a simulator at each detachment it is not inconceivable that the training pilots receive from it could reduce the Project's aircraft loss to a large degree. This requirement would particularly apply to the U-2R when they are brought into the inventory.

5 (6) A high resolution oblique camera effective at ranges of 35 nautical miles to 50 nautical miles is required to obtain photographic coverage of targets heavily defended with Surface-to-Air Missiles. One camera of this type is now available on loan from SAC.

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[redacted]

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(7) IDEALIST requires a device that will record and transmit information concerning aircraft difficulties leading to an accident, which would be automatically ejected from the aircraft after a disaster has occurred.

(8) An improved ejection system (Rocket Seat) is needed for low altitude ejections and improved pilot safety.

(9) With addition of equipment the aircraft cockpit has grown smaller to the point where switches must be moved that can't even be seen. An enlarged, and redesigned cockpit is required. This has been accomplished for the U-2R model.

(10) Full pressure suits will be used in the U-2R. Procurement and replacement of these suits plus additional support equipment and personnel, spares, studies and modifications will exist throughout the life of this aircraft. Liquid oxygen facilities will be required also. The above is based on the assumption that allocation of U-2R's will be made to this Headquarters.

5. DEPLOYMENT

25X1A6A a. Detachment "H" at [redacted] is responsible

25X1

[redacted]

for obtaining coverage of all COMOR targets in North Korea and those in mainland China, except the Sino-Indian Border area. Since many of these targets are located beyond the maximum range of the U-2, when operating [redacted] frequent pre/post strike stagings, utilizing bases in [redacted] will be accomplished. In addition to providing coverage of distant targets, the stagings will permit widely varied penetration and exit points and preclude stereotyped mission profiles.

25X1A6A

25X1A6A

b. All operational missions flown by Detachment "G" will launch/recover at an operating location other than Edwards AFB. Past experience indicates we can expect approximately six such deployments per year, for an average duration of thirty days each.

c. It is not unreasonable to assume that at least once each year, the detachment will be required to operate from a U.S. Navy aircraft carrier.

d. Pre-positioning of assets at forward sites will be accomplished to enable the operating detachments to react to requirements in minimum time.

e. KC-135 tanker aircraft will be used for air refueling, communications and air rescue support, and

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[redacted]

to provide transportation for the enroute support kit and enroute support personnel for each overwater deployment requiring more than one ferry flight.

6. OPERATIONAL MISSION CONCEPT

a. Missions will average seven hours in duration.

b. Photo missions with the Hycon "B" Configuration will use either 2000, 4000 or 6500 ft. rolls of film.

c. Photo missions with ITEK Delta III Camera are generally planned for 5000 ft. rolls of film, but it is possible that on a specific mission 7800 ft. rolls be utilized.

d. Photo missions with the Hycon "H" Configuration will use 2000 ft. rolls of film.

e. Droppable fuel tanks will be required for approximately ten missions per year.

f. Although operational missions will be flown when weather in the target area will permit, for the purposes of this paper, they will be flown at the rate of approximately four per month.

g. From time to time, because of specific target coverage required, KC-135 or KC-97 aircraft will be used for air refueling of mission aircraft.

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h. System III and System VI, or suitable replacements, will be utilized on all operational missions.

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j. The MARK IIA, Oscar Sierra, will be a necessity on all operational overflight missions.

k. A lightweight tracker camera, when available, will be carried on all operational missions.

l. All operational missions over CHICOM territory, whenever feasible, will have a minimum penetration altitude of 69,000 feet and planned for random turns as protection against enemy interceptors.

7. AIRCRAFT

a. A minimum of seven U-2 aircraft, equipped with J-75 engines and standard wiring configurations, to allow complete interchangeability of equipment, are required. A seven aircraft inventory will allow Detachment "H" at

25X1A6A

three aircraft for operational missions; three aircraft will be utilized by Detachment "G" at Edwards AFB in support of the dual staging concept; one

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aircraft will normally be at Lockheed Aircraft Corporation undergoing IRAN/updating but should be available on occasions for use of Detachment "G". It will be capable of being configured for an operational mission within seven days. A bonus of 120 hours per year is possible if we assume that the seventh aircraft will be available to Detachment "G" one third of the time.

b. Past history of the U-2 program indicates that aircraft losses can be expected at a rate of one each eight months. It is assumed that a force level of seven aircraft will be maintained. Lost aircraft can be replaced from USAF assets after these aircraft have been modified to Agency configuration. This solution is of a temporary nature. Based on the known loss rate and the assumed life expectancy of the U-2 program a requirement exists for the purchase of additional U-2's similar to those in the present inventory or the purchase of improved versions of the U-2 aircraft.

8. FLYING HOURS

a. Flying hours accomplished, and techniques employed during operational reconnaissance missions, will be credited to the training program for the detachment and the individuals concerned. In addition, a continuous flying training

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program will be conducted by each detachment to assure the capability to conduct reconnaissance operations on a world-wide basis.

b. Flying hours required to perform operational missions, train two to four [redacted] yearly and to maintain pilot proficiency are based on the following criteria: 25X1X7

(1) Thirty hours per month for each mission pilot until an operational ready status is attained.

(2) Twenty hours per month for each operationally ready mission pilot until he has a total of 200 flying hours in the U-2 aircraft with J-75 engines.

(3) A minimum of ten hours per month for each mission pilot after he has a total of 200 flying hours in the U-2 aircraft.

(4) Each maintenance flight test pilot will require a minimum of ten hours per month to retain the desired level of proficiency.

(5) Training of [redacted] will require a minimum of 60 hours each prior to being designated Category III operational ready status. 25X1X7

c. Flying hours available are computed on the basis

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[redacted]

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of thirty five hours per month for each aircraft available.

d. An estimate of the flying hours available versus flying hours required, from the first half of FY-68 through FY-69, is indicated below in six month increments. It should be noted that the requirements are modified by footnotes during each period to reflect adjustments necessary to enable us to operate within the flying hours available.

e. A consolidation of available flying hours and required flying hours is provided for FY-1970 through FY-1973 based on a seven aircraft inventory and no reduction in number of pilots.

f. Flying hours for Detachment "H" are computed so as to maintain the detachment [redacted] operational ready pilot strength at a force level of 5. As these pilots are on a combat tour of either ten U-2 overflight missions or eighteen months there will always be a variance in the number of operational ready pilots and pilots in training.

25X1X7

25X1

[redacted]

25X1

25X1

FY - 1968

1 JULY - 31 DECEMBER 1967

A. Detachment "G"

1. Flying hours available 700

2. Flying hours required 720

7 - [redacted] 420

25X1X7 2 - [redacted] 120

1 - Maintenance Flight Test Pilot 60

25X1X7 2 - [redacted] pilots in training 120

3. Difference between available hours and required will be voided when [redacted] are TDY to Detachment "H" or by reducing time allocated to [redacted] operational ready pilots.

25X1C

25X1X7

B. Detachment "H"

1. Flying hours available 630

2. Flying hours required 540

25X1X7 3 - [redacted] 180

1 - [redacted] 60

1 - U.S. Operational Ready Pilot 60

25X1X7 2 - [redacted] pilots continuation training and proficiency flight to attain 200 hours. 240

25X1

[redacted]

25X1

25X1

3. Difference between available hours and required will be used for proficiency flying, operational missions and for

25X1C the [redacted] when he is TDY at Detachment "H".

[redacted]

25X1

25X1

FY - 1968

1 JANUARY - 30 JUNE 1968

A. Detachment "G"

1. Flying hours available 700

2. Flying hours required 720

7 - [redacted] 420

25X1X7 2 - [redacted] 120

1 - Maintenance Flight Test Pilot 60

25X1X7 2 - [redacted] pilots in training 120

3. Difference between available hours and required will be voided when [redacted] are TDY to Detachment "H" or by reducing time allocated to the [redacted] operational ready pilots.

25X1C

25X1X7

B. Detachment "H"

1. Flying hours available 630

2. Flying hours required 540

25X1X7 3 - Operational Ready [redacted] Pilots 180

1 - Maintenance Flight Test Pilot 60

1 - [redacted] 60

25X1X7 2 -

requiring 20 hours per month 240

25X1

[redacted]

3. Difference between available hours and required will be used for proficiency flying and for the [redacted] 25X1C when he is TDY at Detachment "H". 25X1C

25X1

[redacted]

25X1

FY - 1969

1 JULY - 31 DECEMBER 1968

A. Detachment "G"

1. Flying hours available 700

2. Flying hours required 720

7 - [redacted] 420

25X1X7 2 - [redacted] 120

1 - Maintenance Flight Test Pilot 60

25X1X7 2 - [redacted] pilots in training 120

3. Hours required this period exceed hours available resulting in extending the training period for [redacted] 25X1X7

B. Detachment "H"

1. Flying hours available 630

2. Flying hours required 540

25X1X7 3 - Operational Ready [redacted] Pilots 180

1 - Maintenance Flight Test Pilot 60

25X1X7 1 - [redacted] 60

2 -

and proficiency flights to attain 200 hours 240

3. Additional flying hours will be used for improving

[redacted] 25X1

25X1C

proficiency and the [redacted] when

TDY to Detachment "H".

25X1

[redacted]

FY - 1969

1 JANUARY - 30 JUNE 1969

A. Detachment "G"

1. Flying hours available 700

2. Flying hours required 720

7 - [redacted] 420

25X1X7 2 - [redacted] 120

1 - Maintenance Flight Test Pilot 60

25X1X7 2 - [redacted] pilots in training 120

3. Time allotted to further training of [redacted] will 25X1X7 of necessity be reduced thus extending their training period.

B. Detachment "H"

1. Flying hours available 630

2. Flying hours required 540

25X1X7 3 - [redacted] 180

1 - [redacted] 60

1 - Maintenance Flight Test Pilot 60

25X1X7 2 - [redacted] Operational Ready Pilots requiring 20 hours per month for 6 months 240

3. Excessive time will be used to further train primary

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[redacted]

25X1

25X1C

pilots and for [redacted] if TDY

Detachment "H".

25X1

[redacted]

25X1

CONSOLIDATED REQUIREMENT FOR

FY 1970 THRU FY 1973

FY 1970

1 July 1969 - 30 June 1970

LOCATION	REQUIRED	AVAILABLE
Detachment "G"	1440	1400
Detachment "H"	1080	1260
TOTALS	2520	2660

FY 1971

1 July 1970 - 30 June 1971

Detachment "G"	1440	1400
Detachment "H"	1080	1260
TOTALS	2520	2660

FY 1972

1 July 1971 - 30 June 1972

Detachment "G"	1440	1400
Detachment "H"	1080	1260
TOTALS	2520	2660

FY 1973

1 July 1972 - 30 June 1973

Detachment "G"	1440	1400
Detachment "H"	1080	1260
TOTALS	2520	2660

25X1

[redacted]